

CLAIMS

What is claimed is:

1. A network storage type video camera system comprising:

5 camera terminal equipment for generating moving image data;

a network; and

a moving image storage server connected to the camera terminal equipment through the network,

10 wherein the camera terminal equipment converts the generated moving image data into packets to transmit in real time to the moving image storage server;

the moving image storage server stores received packets and then reports reception packet information on
15 the received packets to the camera terminal equipment; and further,

after real-time transmission of the packets is completed, the camera terminal equipment supplies one or more lost packets having been lost during the transmission
20 to the moving image storage server, so as to complement the lost packets according to the reported reception packet information.

2. A network storage type video camera system
25 comprising:

camera terminal equipment for generating moving image data;

a network; and

a moving image storage server connected to the camera terminal equipment through the network,
wherein the camera terminal equipment converts the
5 generated moving image data into packets to transmit in real time to the moving image storage server;

the moving image storage server stores received packets and then reports reception packet information on the received packets to the camera terminal equipment;
10 and further,

in parallel with the real-time packet transmission, the camera terminal equipment supplies through another channel route one or more lost packets having been lost during the transmission to the moving image storage server,
15 so as to complement the lost packets according to the reported reception packet information.

3. The network storage type video camera system according to claim 1 or 2, wherein the moving image storage
20 server restores the moving image data using both the packets being stored during the real-time packet transmission and the lost packets being supplied from the camera terminal equipment after the real-time transmission is completed.

25 4. The network storage type video camera system according to claim 1 further comprising:

in the camera terminal equipment, a drive mechanism

for receiving a memory medium to store the packets being supplied to the moving image sever after the completion of the real-time packet transmission to complement the lost packets having been lost during the real-time transmission;

5 and

in the moving image storage server, a drive mechanism for receiving the memory medium to read in stored packets being supplied to complement the lost packets having been lost during the real-time transmission.

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5. The network storage type video camera system according to claim 1 or 2, wherein the camera terminal equipment comprises a storage means for storing packets for real-time transmission, from which lost packets to be supplied after the completion of the real-time packet transmission are obtained by deleting from the storage means the packets having been received by the moving image storage server according to the reception packet information reported from the moving image storage server.

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6. The network storage type video camera system according to claim 5 further comprising in the camera terminal equipment a user interface for inputting an image capture order from a user, wherein a residual image recording time is estimated based on residual storage capacity of the camera terminal equipment, residual packet storage capacity of the moving image storage server, and

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the past record on both data transmission rate and data loss rate in the network, to display the residual image recording time onto the user interface.

5 7. The network storage type video camera system according to claim 6 wherein the estimation of residual recording time, $A(T)$, is derived from the following formula;

$$A(T) = \text{MIN} (A_s(T), A_c(T))$$

10 where $A_s(T) = R_s(T) / (P_s(T) - P_l(T))$,

$$A_c(T) = R_c(T) / P_l(T),$$

and,

$R_c(T)$: residual storage capacity of the camera terminal equipment (bytes),

15 $R_s(T)$: residual packet storage capacity of the moving image storage server (bytes),

$P_s(T)$: number of transmission bytes to be transmitted within a predetermined period up to the time T in the network (bytes/sec),

20 $P_l(T)$: quantity of data loss rate in the network (bytes/sec).

8. The network storage type video camera system according to claim 3 further comprising a moving image
25 regeneration terminal being connected to the moving image storage server through a network, for distributing to the moving image regeneration terminal a moving image being

stored during the real-time recording, and for distributing
a restored moving image having no loss after the recording
is completed.